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# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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| In the Matter of  | )   | FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY |
|---|-----|---|
| Advanced Television Systems<br>and Their Impact Upon the Existing<br>Television Broadcast Service | ) ) | MM Docket No. 87-268                                      |

### **OPPOSITION TO PETITION FOR RECONSIDERATION**

To:

The Commission

Lee Enterprises, Inc. ("Lee Enterprises"), the licensee of WSAZ-TV, NTSC Channel 3, DTV Channel 23, Huntington, West Virginia, by its attorneys, hereby opposes the Petition for Reconsideration ("Petition") filed April 20, 1998, by Pappas Telecasting of America, A California Limited Partnership ("Pappas") in the above-captioned proceeding.

In its Petition, Pappas requests that the Commission amend its DTV Table of Allotments¹ by relocating WSAZ-TV from DTV Channel 23 to DTV Channel 2. This modification would protect Pappas's pending application for a new television station to operate on NTSC Channel 23 at Charleston, West Virginia, by removing a significant short-spacing to WSAZ-TV's current DTV allotment.² The proposed relocation of WSAZ-TV, however, is a flawed solution to the co-channel allotment conflict and must be denied.

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See Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order, FCC 98-24 (released February 23, 1998) ("MO&O").

The site proposed in the Pappas application is only 23.3 kilometers from the presumed site of WSAZ-TV's DTV operations.

As demonstrated in the attached Engineering Statement prepared by Hammett & Edison, Inc., Pappas's proposal is defective in numerous critical respects. First, operation of WSAZ-TV on DTV Channel 2 would result in prohibited levels of new interference to viewers of WSAZ-TV. Contrary to Pappas's assertion that relocating WSAZ-TV to DTV Channel 2 would improve the station's service area replication from its current 99.8% to 100%, the interference-free population for WSAZ-TV's digital service would actually decrease by more than 30,000 persons, or 2.3%. This loss of interference-free population exceeds the 2% *de minimis* interference test the Commission adopted in the MO&O.<sup>3</sup> The proposal must be rejected on this ground, if no other.<sup>4</sup>

Second, operating on DTV Channel 2, WSAZ-TV would be 23.1 kilometers short-spaced to WDTN(TV), NTSC Channel 2, Dayton, Ohio, and would cause prohibited levels of new interference to WDTN. As the H&E Engineering Statement shows, WDTN would suffer a 2.3% increase in interference, which again exceeds the 2% *de minimis* standard. Additionally, as the Statement points out, WDTN already receives interference to more than 10% of its Grade B population. Under the Commission's standard, therefore, relocation of WSAZ-TV to DTV Channel 2 would be permissible only if it caused *no* new interference to WDTN.<sup>5</sup> In short, the

<sup>&</sup>lt;sup>3</sup> MO&O ¶ 80.

In considering further changes in the allotment table at this late stage in this proceeding, the Commission could well apply a zero interference standard, which would cause Pappas's Petition to fail on its face.

MO&O ¶ 80. An internal inconsistency in Pappas's petition obscures the fact that its own engineering, in fact, predicts an additional 1.9% interference to WDTN (see H&E Statement at 3). In view of the 14% interference WDTN already suffers, even this level of interference, though meeting the *de minimis* test, fails the 10% maximum interference limit and must be rejected.

proposed channel substitution is doubly precluded, both because it violates the *de minimis* standard and because WDTN is already "maxed out" in the amount of interference it suffers within its Grade B contour. The Commission must reject the proposal on these grounds, as well.

As an alternative to the channel substitution at WSAZ-TV, Pappas's Petition alleges that it could operate a new NTSC station in Charleston on either of two alternate channels, without causing interference to any DTV facility. Should the Commission elect to allow Pappas to amend its pending application to specify operation on one of those vacant allotments, Lee Enterprises would have no objection.

In light of the foregoing, Lee Enterprises respectfully requests that the Commission reaffirm a DTV allotment of Channel 23 for WSAZ-TV and DENY the Pappas Petition insofar as it would change that allotment.

Respectfully submitted,

LEE ENTERPRISES, INC.

By:

Marnie K Sarver

WILEY, REIN & FIELDING 1776 K Street, N.W. Washington, D.C. 20006 (202) 429-7000

Its Attorneys

May 4, 1998

Engineering Exhibit in Support of Response to Petition for Reconsideration by Pappas Telecasting of America

April 29, 1998

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#### Statement of Dane E. Ericksen, Consulting Engineer

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Lee Enterprises, Inc. to prepare an engineering exhibit in response to the Petition for Reconsideration filed by Pappas Telecasting of America.

#### **Background Information**

Lee Enterprises, Inc. ("Lee") is licensee of Station WSAZ-TV, NTSC Channel 3, Huntington, West Virginia. In the Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order ("6th Recon Order") Lee was assigned DTV Channel 23 with an average effective radiated power ("ERP") of 445 kW.

Pappas Telecasting of America ("Pappas") is the applicant for a new NTSC Channel 23 station for Charleston, West Virginia, FCC File No. BPCT-960722KO. On April 20, 1998, Pappas filed a Petition for Reconsideration alleging that the Commission overlooked its pending NTSC application, when it assigned DTV Channel 23 to WSAZ-DT, and proposing that WSAZ-DT instead be assigned DTV Channel 2. Pappas claimed that such a channel substitution could be made without causing interference to any other DTV allotment or NTSC station and that it would actually increase the population served by WSAZ-DT.

### Pappas NTSC N23 Charleston, WV, Application is Mutually Exclusive with the WSAZ-DT D23 Huntington, WV, Allotment

I agree with Pappas that the WSAZ-DT D23 allotment for Huntington, West Virginia, is mutually exclusive with the Pappas N23 application for Charleston, West Virginia. The site proposed in the Pappas application is only 23.3 kilometers from the presumed WSAZ-DT site. The proposed Pappas N23 facilities would cause the WSAZ-DT interference-free service to catastrophically decrease from 1,084,637 persons to 537,516 persons. This represents a reduction in population served by WSAZ-DT of 547,121 persons, more than a 50% reduction.

## Proposed DTV Channel Substitution Would Cause More Than a *de minimus* Loss in Population Served by WSAZ-DT

However, I disagree with the Pappas claim that substitution of Channel D02 for Channel D23 as the WSAZ-DT channel would *increase* the number of persons predicted to receive interference-free DTV service from WSAZ-DT. To the contrary, if WSAZ-DT was to be re-assigned to Channel D02 with an average ERP of 3.2 kW using the station's Channel D23 replication pattern (which is within 0.07 dB of being omnidirectional, as shown by the attached Figure 1), the WSAZ-DT

interference-free population would *decrease* from 1,084,637 persons to 1,053,901 persons. This decrease of 30,736 persons represents 2.3% of D23 interference-free population, and therefore fails the 2% *de minimus* test established at Paragraph 80 of the 6th Recon Order. The attached Figure 2 shows the existing interference conditions for WSAZ-DT on DTV Channel 23, and the attached Figure 3 shows the interference conditions for WSAZ-DT on DTV Channel 02. It can be seen that there would be many new interference cells for the DTV Channel 02 case.

### Proposed DTV Channel Substitution Would Cause More Than a *de minimus* Increase in Interference to WDTN N02 Dayton, Ohio

TV Station WDTN, NTSC Channel 2, Dayton, Ohio, is 221.5 kilometers from WSAZ-DT, or 23.1 kilometers less spacing than Section 73.623(d)(2) would require for a new VHF low-band co-channel DTV-to-NTSC spacing in Zone I. However, the criteria for 6th Recon Order DTV allotments is based on interference, not distance, so detailed OET69 type interference studies must be performed to see if the proposed channel substitution would work.

As can be seen by the attached Figure 4, showing the existing WDTN interference conditions, there are already a substantial number of cells within the WDTN Grade B contour that have predicted interference. Indeed, WDTN already suffers more than 10% interference, in that its Grade B population is 3,555,484 persons and its interference-free population is 3,056,456 persons, meaning that WDTN is already predicted to lose 14.0% of its Grade B population due NTSC and DTV interference. Therefore, according to Paragraph 80 of the 6th Recon Order, no additional interference whatsoever is allowed to WDTN. If WSAZ-DT changed operation to D02 at 3.2 kW ERP using its replication pattern, the WDTN interference-free population would decrease to 2,986,810 persons. This 69,645-person reduction represents 2.3% of the current WDTN interference-free population, thus failing the *de minimus* test, even if the 10% limit had not already been reached. The attached Figure 5 shows the WDTN interference conditions with the addition of WSAZ-DT as D02; it can be seen that there are many new interference cells to the souteast, towards WSAZ-DT.

Thus, substitution of D02 for D23 as the WSAZ-DT channel is doubly precluded: not only would such substitution violate the 2% "de minimus" policy, WDTN is already a "greater than 10% interference" station protected against any incremental worsening of its existing interference.

#### Increased Power for WSAZ-DT on D02 Would Not Be a Solution

For the presumed 388-meter WSAZ-DT effective height, Section 73.622(f)(4) of the FCC Rules would allow a newcomer VHF low-band Zone I allotment an omnidirectional ERP of 4.5 kW.



population served problem that the 3.2 kW power level would cause (indeed, the WSAZ-DT interference-free population would then increase by 1.5%, from 1,084,637 persons to 1,100,848 persons), this class-maximum DTV ERP would then cause even greater interference to WDTN. For a WSAZ-DT D02 ERP of 4.5 kW omnidirectional, the WDTN interference-free population would further decrease to 2,972,234 persons. This represents a loss of 84,222 persons, of 2.8% of the WDTN interference-free population. Of course, because of the 10% interference cap policy and the 2% de minimus cap, a 2.8% incremental increase in the WDTN interference is prohibited.

#### Pappas' Own Figures Show Substantial New Interference

I note that the engineering exhibit submitted in support of the Pappas Petition does not support the claims made in the Petition. Namely, the Petition claims that substitution of D02 for D23 as the WSAZ-DT channel "... would result in only negligible interference to other digital or NTSC facilities (less than 0.05%)." Yet Page 4 of the engineering exhibit ("Study with Huntington as it is presently on Digital Channel 23") submitted by Pappas in support of its Petition shows the "lost to additional IX by ATV" population for NTSC Channel 2 at Dayton, Ohio, as only 3,947 persons, whereas Page 5 of the engineering exhibit ("Study with Huntington Digital Channel 23 moved to Digital Channel 2") shows the "lost to additional IX by ATV" population for NTSC Channel 2 at Dayton, Ohio, as 62,280 persons, an increase of 58,333 persons. And the "lost to all IX" population changes from 407,421 persons from the WSAZ-DT on D23 case to 465,754 persons for the WSAZ-DT on D02 case, again an increase of 58,333 persons. This represents 1.9% of the WDTN interference-free population, not "less than 0.05%." Further, as stated above, I believe that the correct increase in the WDTN population subject to interference is actually 69,645 persons, or a 2.3% increase.

#### **Summary**

Contrary to the claims made by Pappas, DTV Channel 02 could not be substituted for DTV Channel 23 as the WSAZ-TV DTV channel without causing more than 2% reductions in the interference-free populations that would otherwise be served by WSAZ-DT and by WDTN. Further, not new interference can be caused to WDTN because that station's interference already exceeds the 10% cap.

#### **List of Figures**

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. Polar plot of the WSAZ-TV NTSC pattern and the WSAZ-DT DTV replication pattern

9-30-00

- 2. Coverage map for WSAZ-DT as D23
- 3. Coverage map for WSAZ-DT as D02
- 4. Coverage map for WDTN with WSAZ-DT as D23
- 5. Coverage map for WDTN with WSAZ-DT as D02.

April 29, 1998

Dane E. Ericksen, P.E.

PROFESSIONAL

No. 11654

#### **Affidavit**

State of California

ss:

County of Sonoma

Dane E. Ericksen, being first duly sworn upon oath, deposes and says:

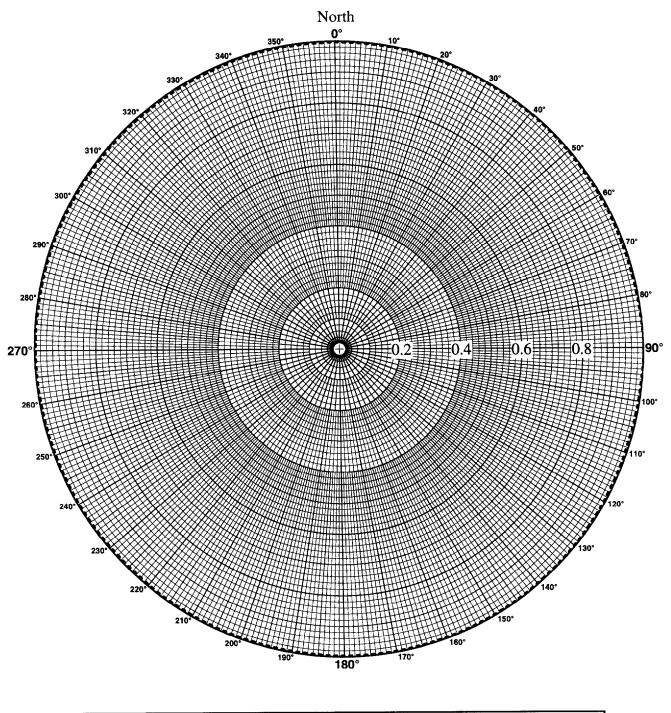
- 1. That he is a qualified Registered Professional Engineer, holds California Registration No. E-11654, which expires on September 30, 2000, and is employed by the firm of Hammett & Edison, Inc., Consulting Engineers, with offices located near the city of San Francisco, California.
- 2. That he graduated from California State University, Chico, in 1970, with a Bachelor of Science Degree in Electrical Engineering, was an employee of the Field Operations Bureau of the Federal Communications Commission from 1970 to 1982, with specialization in the areas of FM and television broadcast stations and cable television systems, and has been associated with the firm of Hammett & Edison, Inc., since October 1982,
- 3. That the firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Lee Enterprises, Inc. to prepare an engineering exhibit in response to the Petition for Reconsideration filed by Pappas Telecasting of America,
- 4. That such engineering work has been carried out by him or under his direction and that the results thereof are attached hereto and form a part of this affidavit, and
- 5. That the foregoing statement and the report regarding the aforementioned engineering work are true and correct of his own knowledge except such statements made therein on information and belief and, as to such statements, he believes them to be true.

Dane E. Ericksen, P.E.

Subscribed and sworn to before me this 29th day of April, 1998 Jen J. Thom



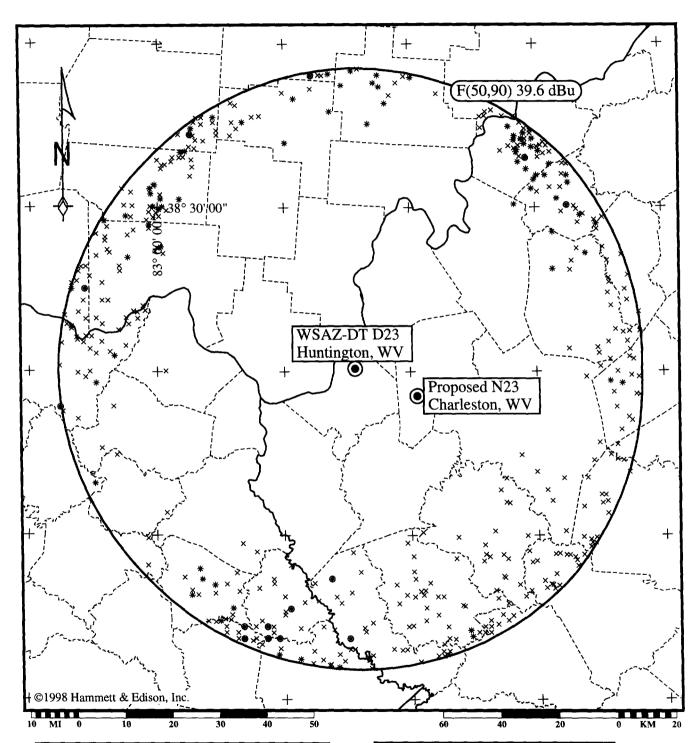
## NTSC Licensed and FCC DTV Replication Patterns (relative field, each normalized to maximum power)



Omnidirectional NTSC azimuth pattern, 42.7 kW peak visual ERP Derived DTV Channel 23 azimuth pattern, 445.0 kW average ERP

NTSC pattern based on FCC engineering database information, for licensed facilities. DTV Replication pattern based on Sixth Reconsideration Order to MM Docket 87-268.

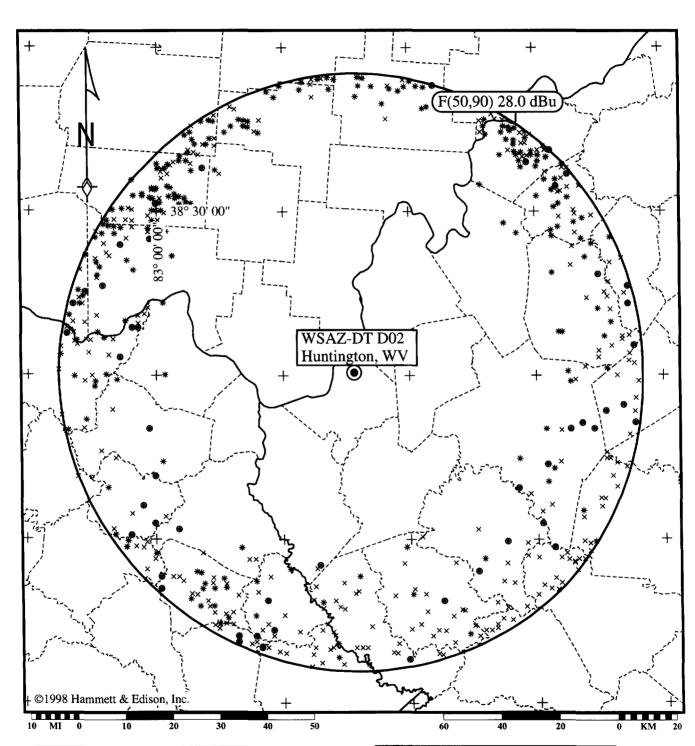
#### WSAZ-DT Coverage as D23 445 kW ERP, Replication Pattern C.O.R. = 616 m AMSL, 388 m HAAT



- ×= No Signal (below threshold)
- \*= Interference (with population in cell)
- = Interference (without population in cell)

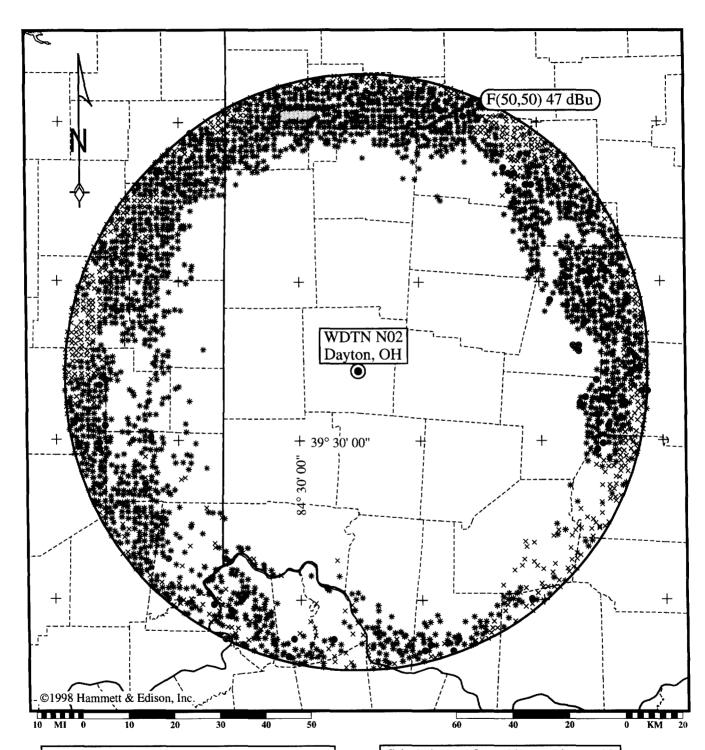


# WSAZ-DT Coverage as D02 3.2 kW ERP using Replication Pattern C.O.R. = 616 m AMSL, 388 m HAAT



- ×= No Signal (below threshold)
- \*= Interference (with population in cell)
- ●= Interference (without population in cell)

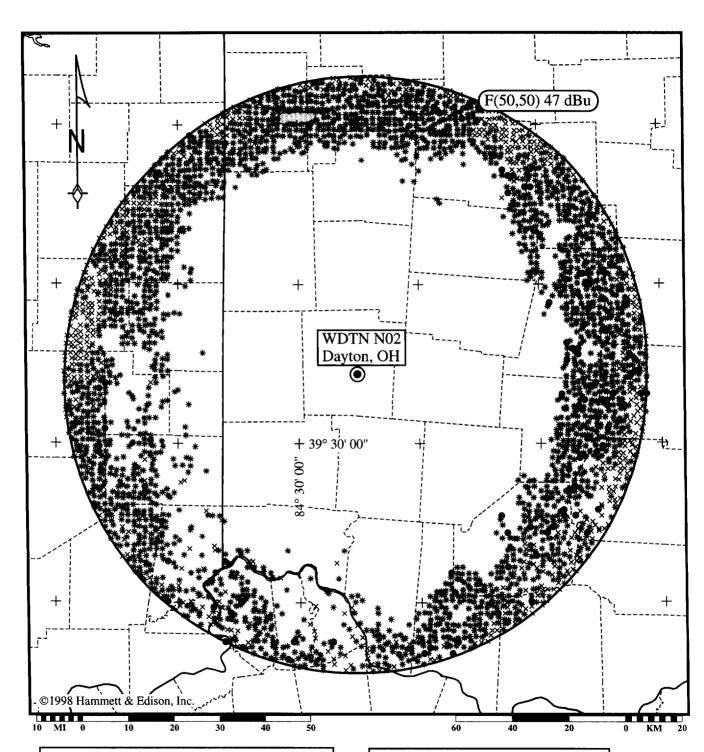
WDTN(TV), N02, Dayton, Ohio, Coverage 100 kW Omnidirectional Peak Visual ERP C.O.R. = 568 m AMSL, 305 m HAAT (with WSAZ-DT as D23)



- x= No Signal (below threshold)
- \*= Interference (with population in cell)
- = Interference (without population in cell)



#### WDTN(TV), N02, Dayton, Ohio, Coverage C.O.R. = 568 m AMSL, 305 m HAAT (with WSAZ-DT as D02 using Replication Pattern at 3.2 kW)



- ×= No Signal (below threshold)
- \*= Interference (with population in cell)
- ●= Interference (without population in cell)



#### **CERTIFICATE OF SERVICE**

I hereby certify that on this 4th day of May, 1998, I caused copies of the foregoing OPPOSITION TO PETITION FOR RECONSIDERATION to be mailed via first-class postage prepaid mail to the following:

Vincent J. Curtis, Jr. Andrew S. Kersting Fletcher, Heald & Hildreth 1300 N. 17<sup>th</sup> Street, 11<sup>th</sup> Floor Arlington, VA 22209 (703) 812-0400

Marnie K. Sarver